

This listing of claims replaces all prior versions and listings of claims in the application:
Please amend claims 4-5, 11-12, and 47-48, and cancel claims 6-7 and 49-51, as follows.

Listing of Claims

1. (Original) An isolated nucleic acid molecule selected from the group consisting of:
 - (a) a nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:1; and
 - (b) a nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:3.

2. (Original) An isolated nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2.

3. (Canceled).

4. (Currently amended) An isolated nucleic acid molecule ~~that~~ which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2, wherein the isolated nucleic acid encodes a polypeptide having a function of the polypeptide of SEQ ID NO: 2, and the allelic variant comprises a conservative substitution of an amino acid of SEQ ID NO:2.

5. (Currently amended) An isolated nucleic acid molecule ~~selected from the group consisting of:~~
 - ~~(a) a nucleic acid molecule comprising an AS3 (Androgen Shutoff Gene 3) nucleotide sequence which has at least 70% identity to the nucleotide sequence of SEQ ID NO:1 or 3, or a complement thereof;~~
 - ~~(b) a nucleic acid molecule comprising a fragment of at least 250 nucleotides of a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1 or 3, or a complement thereof;~~ ~~(c) a nucleic acid molecule which encodes an AS3 (Androgen Shutoff Gene 3) polypeptide comprising an amino acid sequence having at least about 70% identity to the amino acid sequence of SEQ ID NO:2; and~~ (d) a nucleic acid molecule which encodes an fragment of a polypeptide comprising

~~the amino acid sequence of SEQ ID NO:2, wherein the fragment comprises at least 15 contiguous amino acid residues of the amino acid sequence of SEQ ID NO:2.~~

6-7. (Canceled).

8. (Previously Amended) An isolated nucleic acid molecule comprising the nucleic acid molecule of any one of claims 1, 2, 4, or 5, and a nucleotide sequence coding a heterologous polypeptide.

9. (Previously Amended) A vector comprising the nucleic acid molecule of any one of claims 1, 2, 4, or 5.

10. (Original) The vector of claim 9, which is an expression vector.

11. (Currently amended) An isolated host cell transfected with the expression vector of claim 10.

12. (Currently amended) A method of producing ~~a~~ the polypeptide of SEQ ID NO: 2, comprising culturing the isolated host cell of claim 11 in an appropriate culture medium to, and producing thereby, produce ~~the polypeptide of SEQ ID NO: 2.~~

13-46. (Canceled).

47. (Currently amended) A kit for diagnosing a mammal for the presence of a prostate disease involving altered-cell proliferative condition ~~proliferation~~ or an increased likelihood of developing a prostate a disease involving altered-cell proliferative condition compared to an unaffected mammal proliferation, the said kit comprising the nucleic acid of claim 5 ~~a material~~ for measuring AS3 (Androgen Shutoff Gene 3) RNA.

48. (Currently amended) A method of obtaining the ~~a~~ AS3 (Androgen Shutoff Gene

3) polypeptide of SEQ ID NO: 2, the ~~said~~ method comprising:

- (a) providing a cell with DNA encoding the a AS3 (Androgen Shutoff Gene 3) polypeptide of SEQ ID NO: 2, the ~~said~~ DNA being positioned for expression in the ~~said~~ cell;
- (b) culturing the ~~said~~ cell under conditions for expressing the ~~said~~ DNA; and
- (c) isolating the ~~said~~ AS3 polypeptide, whereby an AS3 (Androgen Shutoff Gene 3) polypeptide is obtained.

49-67. (Canceled).

68. (Previously added) An isolated nucleic acid molecule comprising nucleotides 1-5253 of SEQ ID NO: 1.

69. (New). The isolated nucleic acid of claim 4, wherein the function comprises inhibition of cell proliferation.